

TWO NEW SPECIES OF APANTELES FROM CALIFORNIA
(Hymenoptera: Braconidae)

BY C. F. W. MUESEBECK

*Bureau of Entomology and Plant Quarantine, Agricultural
Research Administration, United States Department
of Agriculture*

The following descriptions are presented at this time in order to provide names for use in connection with biological studies involving two new parasites.

Apanteles medicaginis Muesebeck, new species

Apanteles flaviconchae Riley¹ was originally described from Missouri and Connecticut and considered a possible parasite of the armyworm since the cocoons had been found in clover fields infested with that pest. It is now known to occur from Maine to Texas as a parasite of *Colias*. Although so wide a host range is unusual for a species of *Apanteles*, it appears that phalaenid larvae are also successfully parasitized on occasion by *flaviconchae*, for there are what seems to be authentic records of rearings from *Plathypena scabra* (F.), the green cloverworm. The principal host, however, is the pierid *Colias philodice philodice* Latr., the so-called clouded sulphur, the larva of which is a common and widespread clover pest. *A. flaviconchae* is a gregarious parasite, some 20 or more individuals developing within a single caterpillar.

Recently an *Apanteles*, parasitic on the alfalfa caterpillar, *Colias philodice eurytheme* Bdv., has attracted attention in California; and several samples have been submitted to me for identification. This form agrees so closely with *flaviconchae*, except for the paler hind femora of the female, that I have been inclined to regard it as only a western race of *flaviconchae*. Dr. Ray F. Smith, of the University of California, now has informed me, however, that this parasite always develops singly in its host. It would appear, therefore, that despite the similarity in structure and host relations the eastern and western populations are distinct species. Accordingly, the California parasite of the alfalfa caterpillar is here described as new.

¹Trans. Acad. Sci. St. Louis 4(2):308, 1881.

The only structural differences I have discovered between this species and *flaviconchae* are quantitative and subtle. They are not easily defined. In *medicaginis* the upper third of the face has a more or less distinct, median, longitudinal, keel-like elevation, of which there is only a faint suggestion in *flaviconchae*. The malar space in *medicaginis* is slightly longer and the face a little narrower than in *flaviconchae*, the face at its narrowest point being narrower than the eye height. In *flaviconchae* the punctures on the posterior half of the mesoscutum are separate although close, whereas in *medicaginis* they tend to be confluent, especially along the lines of the notaulices. The polished lateral margins of the second tergite are usually complete in *flaviconchae* and are continued upon the basal part of the third tergite, whereas in *medicaginis* they are usually not complete and seem never to extend upon the third tergite. Although these two species are not always readily separated by these distinctions, the females may normally be recognized at a glance. In *flaviconchae* the posterior femora are black in both sexes, but in *medicaginis* those of the female are reddish-yellow or, at the most, blackish along the upper and lower edges.

Female. Length about 2.5 mm. Face smooth and shining; malar space at least one and one-half times as long as clypeus. Punctures of mesonotum very small but sharp and close throughout, in places confluent as noted above, scutellum convex with scattered weak punctures, shining; propodeum rugose with a complete median longitudinal carina and strong though incomplete costulae; mesopleuron closely punctate on lower half and anteriorly, smooth and polished above the longitudinal impression. Stigma barely twice as long as broad; radius strongly inclined outwardly, longer than intercubitus and joining it in a definite angle; nervellus strongly oblique but nearly straight. Calcaria of hind tibia subequal, slightly less than half as long as metatarsus.

Abdomen rather stout; plate of first tergite broadening apically, finely rugulose; second tergite nearly three times as long as broad, much shorter than third, closely rugulose with very narrow lateral polished margins; suturiform articulation sharply impressed, minutely pitted; third tergite usually with a little indefinite sculpturing basally; hypopygium attaining apex of last tergite; ovipositor sheath barely exerted.

Black; maxillary palpa yellowish except toward base; labial palpa usually piceous, tegulae and radices black; stigma dark brown, most of the veins pale; legs reddish yellow with all coxae and trochanters, bases of fore and middle femora, apices of hind femora and of hind tibiae, and the posterior tarsi, blackish.

Male. Like the female but with black hind femora.

Type locality. DOS PALOS, MERCED COUNTY, CALIFORNIA.

Type. United States National Museum No. 58213.

Described from 94 specimens from the type locality, reared from *Colias philodice eurytheme* Bdv. in August 1946, by Ray F. Smith. In addition to the type series I have before me specimens of this species from Berkeley, Tracy, Westley, Hemet, and Sacramento, California, reared from *C. philodice eurytheme* or collected in alfalfa fields.

Apanteles praesens Muesebeck, new species

This species, which was discovered by N. L. H. Krauss in southern California as a parasite of the geometrid *Anacamptodes fragilaria* (Grossb.), has been taken to Hawaii to combat that pest, which recently became established there. It very closely resembles *A. caffreyi* Mues., but may be distinguished by its more strongly punctate head, conspicuously longer calcaria of hind tibiae, and darker posterior legs.

Female. Length 2.5 mm. Head dull; face, vertex, and temples closely punctate; ocellular line less than twice the diameter of an ocellus; temples receding; antenna a little longer than body. Mesoscutum mat covered with closely placed but very shallow punctures; scutellar furrow very fine, minutely pitted; scutellum mat with scattered shallow punctures; propodeum smooth and shining laterally, weakly punctate medially; mesopleuron mat closely punctate anteriorly, smooth posteriorly and above, the longitudinal impression broad and shallow with some irregular, weak, vertical wrinkles; metapleuron mat smooth, radius barely longer than intercubitus; hind coxa mat, mostly smooth, with an elongate flattened area on outer upper edge at base; inner calcarium of middle tibia slightly longer than metatarsus; inner calcarium of hind tibia about three-fifths as long as metatarsus. Abdomen very slender, compressed; plate of first tergite parallel-sided to apical third, from where it narrows strongly to apex, entirely smooth and polished, its width at apex less than half the length of second tergite; plate of second tergite triangular, bounded laterally by sharp oblique grooves, entirely smooth and polished; hypopygium not attaining apex of abdomen; ovipositor sheath subexserted.

Black; wings hyaline; stigma dark brown, veins paler; all coxae black; trochanters, femora, tibiae, and tarsi of fore and middle legs entirely yellow; posterior femur reddish-yellow, apical third blackish; posterior tibia yellow, blackish on apical two-fifths; posterior tarsus blackish, pale at base.

Male. In all essentials similar to female but with the middle and hind legs darker; hind femur entirely black; hind tibia black on apical half.

Type locality. PASADENA, CALIFORNIA.

Type. United States National Museum No. 58214.

Described from the female type and three male paratypes reared from *Anacamptodes fragilaria* (Grossb.) at the type locality in October 1945, by N. L. H. Krauss; one female from Los Angeles, California, and one from "Southern California," both reared from *A. fragilaria* in January 1946, by Mr. Krauss; and nine males bred by Mr. Krauss in the laboratory at Honolulu, Hawaii, January 1946, upon the same host.

ENOCLERUS HUMERALIS (SCHAEFFER), A PRIMARY
HOMONYM
(Coleoptera, Cleridae)

BY WILLIAM F. BARR

University of California, Berkeley

In 1823, Thomas Say, in the Journal of the Academy of Natural Sciences of Philadelphia, volume 3, page 192, described a new species of Cleridae and gave to it the name *Clerus humeralis*. This species was later placed in the genus *Hydnocera* and at the present time, correctly belongs in the genus *Phyllobaenus*. Charles Schaeffer in 1905, apparently not aware of the previous usage of the trivial name *humeralis* in the genus *Clerus*, described a different species of Cleridae under this same name—*Clerus humeralis*, in the Bulletin of the Brooklyn Institute of Arts and Sciences, volume 1, page 155. This species has since been placed in the genus *Enoclerus* by some workers.

According to the International Rules of Zoological Nomenclature, Article 35, "A specific name is to be rejected as a homonym when it has previously been used for some other species or subspecies of the same genus." Both Say's species and Schaeffer's species are now in different genera, but the important fact is that both species when described, were placed in the genus *Clerus*. Thus *Clerus humeralis*, as described by Schaeffer, is a primary homonym and cannot stand. Therefore, *Enoclerus schaefferi* Barr, new name, is proposed by the writer to take the place of *Clerus humeralis* Schaeffer (nec Say).